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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,486	09/30/2003	Michael A. Rothman	INTEL/17582	6008
34431	7590	03/21/2006	EXAMINER	
HANLEY, FLIGHT & ZIMMERMAN, LLC 20 N. WACKER DRIVE SUITE 4220 CHICAGO, IL 60606			WEINMAN, SEAN M	
			ART UNIT	PAPER NUMBER
			2115	

DATE MAILED: 03/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,486

Applicant(s)

ROTHMAN ET AL.

Examiner

Sean Weinman

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. ***Claims 1-29*** are presented for examination.

Requirement for Information

2. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.
3. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference character 300 in Figure 3 and reference character 512 in Figure 5 are not mentioned in the description. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement

Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. ***Claims 2-8, 10-15, 17-21, 23-27, and 29*** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. ***Claim 2*** recites "A method" in line 1 of claim 2. It is unclear whether this is intended to be the same as or different from the "method" in claim 1 line 1. Additionally, claim 2 recites "a compatibility support module" recited in line 2 of claim 2. It is unclear whether this is intended to be the same as or different from the "compatibility support module" recited in claim 1 line 5.

8. ***Claims 3-8*** recite "A method" in line 1 of their corresponding claims. It is unclear whether these are intended to be the same as or different from the "method" recited in claim 1 line 1.

9. ***Claims 10-15*** recite "An apparatus" in line 1 of their corresponding claims. It is unclear whether these are intended to be the same as or different from the "apparatus" recited in claim 9 line 1.

10. **Claims 17-21** recite "A first computer readable medium" in line 1 of their corresponding claims. It is unclear whether these are intended to be the same as or different from the "first computer readable medium" recited in claim 16 line 1.

11. **Claims 23-27** recite "A first computer readable medium" in line 1 of their corresponding claims. It is unclear whether these are intended to be the same as or different from the "first computer readable medium" recited in claim 22 line 1.

12. **Claim 29** recites "An apparatus" in line 1 of claim 29. It is unclear whether this is intended to be the same as or different from the "apparatus" recited in claim 28 line 1.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. **Claims 1, 4, 5, 7-9, 12, 14-16, 18, 20-23, 25, and 27-29** are rejected under 35 U.S.C. 102(e) as being anticipated by Fish et al (US Patent Application Publication US 2003/0110370).

15. **As per claim 1**, Fish et al teach the claimed invention, comprising:

A method comprising: initializing a processor in a pre-boot environment using a first computer readable medium (*Paragraph [0025] and claim 1*); determining if the processor requires legacy support (*Paragraphs [0050 and 0051]*); and selectively

locating and loading a compatibility support module (*Paragraphs [0051 –0054]*) into the processor from a second computer readable medium (*Paragraph [0050] and Claim 9 The read only memory of in a plug in peripheral*) if the processor requires legacy support (*Paragraphs [0054 and 0055]*).

16. **As per claims 4 and 15**, Fish et al teach the claimed invention, comprising:
the processor requires legacy support comprises locating and examining a device path of an operating system (*Paragraphs [0049-0051]*).

17. **As per claims 5, 12, 18, 23, and 29**, Fish et al teach the claimed invention, comprising:

executing the compatibility support module (*Paragraphs [0054 and 0055]*).

18. **As per claims 7, 14, 20, and 27**, Fish et al teach the claimed invention, comprising: the compatibility support module comprises executing instructions that support at least one of a legacy computer application and a legacy computer operating system (*Paragraphs [0047-0055]*).

19. **As per claims 8 and 21**, Fish et al teach the claimed invention, comprising:
the compatibility support module comprises searching for at least one of an identifier and a signature associated with the compatibility support module in a plurality of computer readable medium locations (*Paragraph [0050] It is inherent that since there are multiple boot options then there would have to be multiple signatures and identifiers for the different legacy boot options*).

20. **As per claim 9**, Fish et al teach the claimed invention, comprising:

An apparatus comprising: a processor system including a pre-boot image memory (*Paragraph [0025] and claim 1*) and an alternate memory (*Paragraph [0050] and Claim 9 The read only memory of in a plug in peripheral*); instructions stored on the pre-boot image memory (*Paragraph [0025] and claim 1*); and a compatibility support module stored on the alternate memory (*Paragraphs [0050 and 0052] and Claim 9 The read only memory of in a plug in peripheral*), wherein the instructions stored on the pre-boot image memory enable the processor system in a pre-boot environment to determine a legacy support requirement (*Paragraphs [0050 and 0051]*) and to selectively load the compatibility support module based on the legacy support requirement (*Paragraphs [0054 and 0055]*).

21. **As per claim 16**, Fish et al teach the claimed invention, comprising:

A first computer readable medium having instructions stored thereon (*Paragraph [0025] and claim 1*) that, when executed, cause a machine to: initialize a processor in a pre-boot environment (*Paragraphs [0025 and 0047-0048] and claim 1*); determine if the processor system requires a legacy support (*Paragraphs [0050 and 0051]*); and selectively locate and load a compatibility support module stored on a second computer readable medium if the processor system requires the legacy support (*Paragraphs [0050, 0052 and 0054-0055] and Claim 9 The read only memory of in a plug in peripheral*).

22. **As per claim 22**, Fish et al teach the claimed invention, comprising:

A first computer readable medium having instructions stored thereon (*Paragraph [0025] and claim 1*) that, when executed, cause a first machine to:

store a compatibility support module on a second computer readable medium
(Paragraphs [0050 and 0052] and Claim 9 The read only memory of in a plug in peripheral);

store a pre-boot image on a pre-boot image computer readable medium
(Paragraph [0025] and claim 1);

configure the pre-boot image to determine a legacy support requirement of a second machine *(Paragraphs [0050 and 0051]);* and

configure the pre-boot image to enable the second machine to load the compatibility support module based on the legacy support requirement *(Paragraphs [0054 and 0055]).*

23. **As per claim 25**, Fish et al teach the claimed invention, comprising:

cause the first machine to configure the pre-boot image to enable the second machine to execute the compatibility support module *(Paragraphs [0050 and 0054 and 0055]).*

24. **As per claim 28**, Fish et al teach the claimed invention, comprising:

An apparatus comprising: a processor system including a flash memory *(Paragraph [0025] and claim 1)* and an alternate memory *(Paragraph [0050] and Claim 9 The read only memory of in a plug in peripheral);* instructions stored on the flash memory *(Paragraph [0025] and claim 1);* and a compatibility support module stored on the alternate memory *(Paragraphs [0050 and 0052] and Claim 9 The read only memory of in a plug in peripheral),* wherein the instructions stored on the flash memory enable the processor system in a pre-boot environment to determine a legacy support

requirement (*Paragraphs [0050 and 0051]*) and to selectively load the compatibility support module based on the legacy support requirement (*Paragraphs [0054 and 0055]*).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. ***Claims 2, 3, 10, 11, 17, and 24*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fish et al. (US Patent Application Publication US 2003/0110370) in view of Yoon et al. (US Patent No. 6,088,784).

27. ***As per claim 3 and 11***, Fish et al teach the claimed invention for all of the reasons stated above. Fish et al. does not teach that the second computer readable medium is a hard drive. In summary, Fish et al. teaches a system that determines if a processor requires legacy support and then loads a compatibility support module into the processor from a second computer readable medium. However, Fish et al. fails to detail that the second computer readable medium is a hard drive.

28. Yoon et al. teaches a boot system which is capable of booting from one of the two computer readable mediums. Yoon et al. teaches wherein the second computer readable medium comprises a hard drive (*Col. 2 lines 38-46 and Claims 1,3, and 4*). In summary, Yoon et al. teaches a boot system having two hard drive with booting

information. The processor then has the ability to boot from either of the two hard drives having different operating systems.

29. It would have been obvious to combine the teachings of Fish et al. and Yoon et al. because both teach having two different computer readable mediums having different operating system. Additionally, they teach that the processor has the ability to boot from either of the computer readable mediums. Yoon et al. teaches the deficiency of Fish et al. by teaching that the second computer readable medium is a hard drive.

30. **As per claim 2, 10, 17, and 24**, Fish et al. and Yoon et al. teach the claimed invention for all of

locating the compatibility support module on at least one of a host protected area and a system partition of the second computer readable medium when the processor requires legacy support (*Fish et al teaches a read only protected read only memory for storing the compatibility support module. It would be obvious to one of ordinary skill in the art to combine the teachings of Fish et al. and Yoon et al. and create a read only partition of the second hard drive for the storage of the compatibility support module*).

31. **Claims 6, 13, 19, and 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fish et al. (US Patent Application Publication US 2003/0110370) in view of Datta (US Patent No. 6,081,890).

32. **As per claims 6, 13, 19, and 26**, Fish et al teach the claimed invention for all of the reasons stated above. Fish et al. does not teach that compatibility support module initializes a BIOS data area and legacy interrupt vectors. In summary, Fish et al. teaches a system that determines if a processor requires legacy support and then loads

a compatibility support module into the processor from a second computer readable medium. However, Fish et al. fails to detail that the compatibility support module initializes a BIOS data area and legacy interrupt vectors.

33. Datta teaches a system, which load a legacy support module to a processor to provide access to a number of legacy routines. Additionally, Datta initializes a BIOS data area and legacy interrupt vectors to execute the compatibility support module. Datta teaches executing the compatibility support module comprises initializing at least one of a BIOS data area and legacy interrupt vectors (*Col. 7 lines 18-35*). In summary, Datta teaches a system of loading a legacy support module, which initializes a BIOS data area and a legacy interrupt vector.

34. It would have been obvious to combine the teachings of Fish et al. and Datta because they both teach system which provide legacy support module to processor that provide alternate boot methods. Datta teaches the deficiency of Fish et al. by teaching that the compatibility support module initialized a BIOS data area and legacy interrupt vectors.

Conclusion

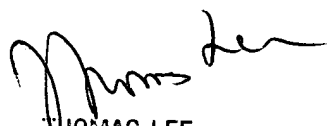
35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Weinman whose phone number is (571) 272-2744. The examiner can normally be reached on Monday-Friday from 8:00-4:30.

36. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571) 272-3667. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2115

37. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sean Weinman
Examiner
Art Unit 2115



THOMAS LEE
SUPERVISORY PATENT EXAMINER
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